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Aphids of Manitoba



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Cover illustration
The dots on the map represent
Agriculture Canada research
establishments.

SUMMARY

This bulletin reports 324 species of aphids collected in Manitoba, and their host plant associations. Aphid and host plant catalogues are included.

RESUMÉ

Cette publication présente la liste de 324 espèces de pucerons collectés dans le Manitoba et leurs hôtes. On présente aussi catalogues de pucerons et des hôtes.

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INTRODUCTION

The aphids are a large group of insect species in the superfamily Aphidoidea in the suborder Homoptera (Blackman and Eastop 1984). About 4000 species are known worldwide (Dixon 1987). Aphids feed on plants by piercing plant tissue and withdrawing plant sap with their straw-like mouthparts. Most species exhibit close associations with a narrow range of related plants and show complex and specific adaptations to their hosts (Dixon 1987). These host plant associations assure that the diversity of aphids in any region depends in part on the diversity of the flora. Over 250 species attack cultivated plants and many have become important agricultural pests (Blackman and Eastop 1984).

This bulletin provides lists of the aphids that have been found in Manitoba, and their associated host plants. These lists are based on aphids in the collection of one of us (A.G.R.). The collecting has been undertaken largely by A.G. Robinson, but also by his students and associates over the past 30 years. Collecting trips have been undertaken to many areas of the province including the north as far as the tundra areas near Churchill, but the fauna of the southern part of the province has been collected more thoroughly. The aphids have been identified primarily by A. G. Robinson, but many other aphid taxonomists have assisted. These experts are listed in the Acknowledgements. Similarly, assistance has been obtained for identifying many of the plant species.

In Manitoba, 324 species of aphid have been identified on approximately 175 species of host plant. The aphid species are listed in alphabetical order followed by their associated hosts in the following List of the Aphids. The aphid names are in accordance with those of Smith and Parron (1978). The host plants on which aphids have been collected are listed in alphabetical order followed by their associated aphids in the following List of the Aphid Host Plants. The plant names are in accordance with Scoggan (1978). The information in these lists is also available from R.J. Lamb as a computerized data base in Lotus 123 accessible on an MS-DOS operating system.

The Province of Manitoba covers a large area with a diverse flora and a variety of vegetative regions. Scoggan (1957) lists about 1400 species of plants as occurring in the province, and describes the vegetative regions and affinities of the plants in the province. There are undoubtedly many as yet undiscovered aphid species in Manitoba, and many unidentified host plant associations. This bulletin provides an updated and much expanded list of the aphids collected in Manitoba as compared to an earlier list (Robinson and Bradley 1968). Similar lists have been prepared for other regions of Canada: the maritime provinces (Pelletier and Boiteau 1986), Quebec (Quednau 1966), Alberta (Harper and Bradley 1987), and British Columbia (Forbes and Chan 1989).

LIST OF THE APHIDS

The aphid species are printed in bold type and listed alphabetically by genus and species, followed by the author of the species. The host plants associated with an aphid are listed following each aphid name in regular type and indented, starting on the next line.

- Acyrthosiphon assiniboinensis** Robinson
Potentilla fruticosa
- Acyrthosiphon asterifoliae** (Strom)
Aster sp.
- Acyrthosiphon brachysiphon** Hille Ris Lambers
Vaccinium sp., by sweeping
- Acyrthosiphon brevicorne** Hille Ris Lambers
Dryas integrifolia
- Acyrthosiphon caraganae** (Cholodkovsky)
Caragana arborescens
- Acyrthosiphon churchillense** Robinson
Hedysarum mackenzii
Oxytropis campestris
Oxytropis leucantha var. *hudsonica*
- Acyrthosiphon lactucae** (Passerini)
Lactuca canadensis
Lactuca scariola
- Acyrthosiphon pisum** (Harris)
Lathyrus spp.
Pisum spp.
Vicia spp.
- Acyrthosiphon pseudodirhodum** (Patch)
Spiraea sp.
- Acyrthosiphon (Metopolophium) dirhodum** (Walker)
Hordeum vulgare
Rosa sp.
- Alloambria caudata** Richards
 fossil
- Alphitoaphis lonicericola** (Williams)
Lonicera dioica
- Amphorophora agathonica** Hottes
Rubus spp.
- Amphorophora ampullata laingi** Mason
Matteucia struthiopteris
- Amphorophora stolonis** Robinson
Rubus pubescens
- Anoecia cornicola** (Walsh)
Cornus stolonifera
- Anoecia graminis** Gillette and Palmer
Hordeum jubatum roots
- Anoecia oenotherae** Wilson
Oenothera biennis roots
- Anoecia setariae** Gillette and Palmer
Equisetum laevigatum roots?

- Aphis armoraciae* Cowen
Artemisia sp.
Rudbeckia hirta roots
Rudbeckia serotina
- Aphis asclepiadis* Fitch
Apocynum cannabinum
Apocynum spp.
- Aphis barberae* Robinson
Arctium minus
Cirsium arvense
Viburnum trilobum
Xanthium strumarium
Rheum rhaponticum
- Aphis ceanothi* Clarke
Ceanothus ovatus
- Aphis cracca* Linnaeus
Vicia cracca
- Aphis decepta* Hottes and Frison
Heracleum lanatum
- Aphis duckmountainensis* Rojanavongse and Robinson
Senecio pauperculus
- Aphis fabae* Scopoli
Vicia faba
Euonymus europaeus
- Aphis farinosa* Gmelin
Salix spp.
- Aphis forbesi* Weed
Fragaria sp.
- Aphis gossypii* Glover
Diervilla lonicera
Galium boreale
Monarda fistulosa
Oenothera biennis
- Aphis helianthi* Monell
Cornus stolonifera
Epilobium angustifolium
Helianthus annuus
Impatiens capensis
Humulus lupulus
Mirabilis hirsuta
- Aphis heraclella* Davis
Cicuta maculata
Heracleum lanatum
Pastinaca sativa
Sium suave
- Aphis knowltoni* Hottes and Frison
Taraxacum officinale
- Aphis maculatae* Oestlund
Cornus stolonifera
Populus tremuloides
- Aphis madderæ* Robinson
Taraxacum lacerum

- Aphis manitobensis* Robinson and Rojanavongse
Ribes spp.
- Aphis masoni* Richards
Oxytropis campestris
Oxytropis leucantha var. *hudsonica*
- Aphis mimuli* Oestlund
Bidens sp.
Ribes aureum
- Aphis nasturtii* Kaltenbach
Bidens sp.
Rhamnus sp.
- Aphis neogillettei* Palmer
Cornus stolonifera
Epilobium angustifolium
- Aphis neomexicana* (Cockerell)
Ribes spp.
- Aphis neomonardae* Rojanavongse and Robinson
Agastache foeniculum
Mondarda fistulosa
- Aphis nerii* Boyer de Fonscolombe
in greenhouse
- Aphis nivalis* Hille Ris Lambers
Epilobium angustifolium
- Aphis oenotherae* Oestlund
Oenothera biennis
Oenothera parviflora
- Aphis oestlundii* Gillette
Oenothera biennis
Oenothera parviflora
- Aphis pomi* DeGeer
Cotoneaster acutifolia
Malus spp.
Sorbus aucuparia
- Aphis rubicola* Oestlund
Rubus idaeus var. *strigosus*
Rubus spp.
- Aphis rumicis* Linnaeus
Rumex spp.
- Aphis salicariae* Koch
Cornus stolonifera
Epilobium angustifolium
- Aphis saniculae* Williams
Sanicula marilandica
Zizia aptera
- Aphis sedi* Kaltenbach
Sedum sp.
- Aphis spiraecola* Patch
Apocynum androsaemifolium
Spiraea spp.
- Aphis thaspii* Oestlund
Cicuta maculata
Zizia aurea

- Aphis varians* Patch
Epilobium angustifolium
Ribes spp.
- Aphis viburniphila* Patch
Viburnum rafinesquianum
Viburnum trilobum
- Aphis whiteshellensis* Rojanavongse and Robinson
Amelanchier alnifolia
- Aphthargelia symphoricarpi* (Thomas)
Symphoricarpos occidentalis
- Asiphonaphis pruni* Wilson and Davis
Prunus virginiana
- Aspidaphis adjuvans* (Walker)
Polygonum aviculare
- Aspidaphium utahensis* Smith and Knowlton
 moss in Berlese funnel
- Atarsos grindeliae* Gillette
Grindelia squarrosa
- Aulacorthum solani* (Kaltenbach)
Pelargonium sp.
- Betulaphis quadrituberculata* (Kaltenbach)
Betula papyrifera
- Boernerina variabilis* Richards
Alnus sp.
- Brachycaudus rociadae* (Cockerell)
 garden delphinium
- Brevicoryne brassicae* (Linnaeus)
Brassica oleracea brussels sprouts and cabbage in storage
- Calaphis betulaecolens* (Fitch)
Betula papyrifera
- Calaphis manitobensis* Richards
Betula glandulosa
- Calaphis viridipallida* Palmer
Betula papyrifera
- Callipterinella callipterus* (Hartig)
Betula sp.
- Capitophorus elaeagni* (Del Guercio)
Cirsium spp.
Sonchus spp.
- Capitophorus hippophaes* (Walker)
Polygonum persicaria
- Capitophorus hudsonicus* Robinson
Shepherdia canadensis (probably)
- Capitophorus xanthii* (Oestlund)
Xanthium strumarium
- Catamergus kickapoo* (Hottes and Frison)
Polygonatum canaliculatum
- Cavariella aegopodii* (Scopoli)
 cultivated dill
Salix sp.
- Cavariella aquatica* (Gillette and Bragg)
Salix planifolia

- Cavariella konoi* Takahashi
Cicuta maculata
Cicuta mackenzieana
Salix planifolia
Salix sp.
- Cavariella pastinacae* (Linnaeus)
Heracleum lanatum
- Cavariella salicis* (Monell)
Sium suave
- Cepigilletea betulaefoliae* Granovsky
Betula papyrifera
- Ceruraphis viburnicola* (Gillette)
Viburnum opulus
- Chaetosiphon scalaris* Richards
Potentilla fruticosa
- Chaetosiphon* (*Pentatrachopus*) *fragaefolii* (Cockerell)
Rosa spp.
- Chaetosiphon* (*Pentatrachopus*) *minor* (Forbes)
Fragaria spp.
- Chaitophorus essigi* Gillette and Palmer
Populus spp.
- Chaitophorus essigi* subsp. *neglectus* Hottes and Frison
Populus spp.
- Chaitophorus macrostachyae* (Essig)
Salix sp.
- Chaitophorus nigrae* Oestlund
Salix spp.
- Chaitophorus nigricentrus* Richards
Salix sp.
- Chaitophorus nudus* Richards
Populus tremuloides
- Chaitophorus populialbae* (Boyer de Fonscolombe)
Populus sp.
- Chaitophorus populicola* Thomas
Populus spp.
- Chaitophorus pusillus* Hottes and Frison
Salix planifolia
- Chaitophorus saliciniger* (Knowlton)
Salix sp.
- Chaitophorus stevensis* Sanborn
Populus sp.
- Chaitophorus viminalis* Monell
Salix planifolia
- Cinara banksiana* Pepper and Tissot
Pinus banksiana
- Cinara braggii* (Gillette)
Picea glauca
- Cinara canatra* Hottes and Bradley
Pinus banksiana
- Cinara coloradensis* (Gillette)
Picea glauca
- Cinara fornacula* Hottes

- Picea glauca*
Cinara *harmonia* **Hottes**
Pinus resinosa
Cinara *hottesi* (**Gillette and Palmer**)
Picea glauca
Cinara *juniperi* (**DeGeer**)
Juniperus communis
Cinara *laricifex* (**Fitch**)
Larix laricina
Cinara *obscura* **Bradley**
Picea glauca
Cinara *ontarioensis* **Bradley**
Pinus banksiana
Cinara *pergandei* (**Wilson**)
Pinus banksiana
Cinara *petersoni* **Bradley**
Juniperus horizontalis
Cinara *pinea* (**Mordvilko**)
Pinus sp.
Cinara *spiculosa* **Bradley**
Larix laricina
Cinara *strobi* (**Fitch**)
Pinus strobus (reared in greenhouse)
Cinara *subterranea* **Bradley**
Larix laricina
Colopha *ulmicola* (**Fitch**)
Ulmus americana
Coloradoa *absinthii* (**Lichtenstein**)
Artemisia sp.
Coloradoa *artemisiae* (**Del Guercio**)
Artemisia sp.
Cryptaphis *bromi* **Robinson**
Bromus inermis
Cryptomyzus *ribis* (**Linnaeus**)
Stachys palustris
Teucrium occidentale
Diuraphis (**Holcaphis**) *frequens* (**Walker**)
Agropyron repens
Diuraphis (**Holcaphis**) *tritici* (**Gillette**)
Triticum aestivum
Drepanaphis *acerifoliae* (**Thomas**)
Acer saccharinum
Drepanaphis *spicata* **Smith**
Acer spicatum
Dysaphis *tulipae* (**Boyer de Fonscolombe**)
tulip bulbs
Epameibaphis *frigidae* (**Oestlund**)
Artemisia frigida
Eriosoma *americanum* (**Riley**)
Ulmus americana
Amelanchier alnifolia
Eriosoma *crataegi* (**Oestlund**)

- Crataegus* sp.
Eriosoma lanigerum (Hausmann)
Malus sp.
Ulmus sp.
Eucallipterus tiliae (Linnaeus)
Tilia americana
Euceraphis betulae (Koch)
Betula spp.
Euceraphis gillettei Davidson
Alnus spp.
Betula sp.
Fimbriaphis wakibae (Hottes)
Rubus pubescens
Forda formicaria Heyden
Poa pratensis
Forda marginata Koch
Agropyron repens
Poa pratensis
Glabromyzus crataegi (Monell)
Crataegus sp.
Glabromyzus howardi (Wilson)
Agrostis sp.
Glabromyzus rhois (Monell)
Rhus glabra
Glyphina setosa MacGillivray
 yellow trap
Gypsoaphis oestlundii (Hottes)
Lonicera dioica
Hamamelistes spinosus Shimer
Betula spp.
Hayhurstia atriplicis (Linnaeus)
Chenopodium album
Hoplochaitophorus quercicola (Monell)
Quercus macrocarpa
Hyadaphis foeniculi (Passerini)
Sium suave
Zizia aurea
Hyadaphis tataricae (Aizenberg)
Lonicera tatarica
Hyalomyzus monardae (Davis)
Monarda fistulosa
Hyalopterus pruni (Geoffroy)
Phragmites communis
Prunus spp.
Hyperomyzus lactucae (Linnaeus)
Ribes spp.
Sonchus arvensis
Hyperomyzus pallidus Hille Ris Lambers
Ribes spp.
Sonchus arvensis
Hyperomyzus (Neonasonovia) inflata (Richards)
 suction trap

- Hyperomyzus* (*Neonasonovia*) *nabali* (Oestlund)
Prenanthes alba
Ribes sp.
- Hyperomyzus* (*Neonasonovia*) *ribiellus* (Davis)
Ribes spp.
- Hyperomyzus* (*Neonasonovia*) *sandilandica* (Robinson)
Crepis tectorum
- Hysteroneura* *setariae* (Thomas)
Prunus spp.
- Illinoia* *alni* (Mason)
Alnus sp.
- Illinoia* *azaleae* (Mason)
Ledum sp.
- Illinoia* *canadensis* (MacGillivray)
Myrica gale
- Illinoia* *goldamaryae* (Knowlton)
Erigeron sp.
Solidago sp.
- Illinoia* *grindeliae* subsp. *palmerae* (MacGillivray)
Grindelia squarrosa
- Illinoia* *richardsi* (MacGillivray)
Anaphalis margaritacea
- Illinoia* *simpsoni* (MacGillivray)
Linnaea borealis
- Illinoia* *spiraecola* (Patch)
Spiraea sp.
- Illinoia* *wahnaga* (Hottes)
Convallaria majalis
Smilacina sp.
- Illinoia* (*Masonaphis*) *paqueti* (MacGillivray)
Ledum groenlandicum
- Illinoia* (*Masonaphis*) *pinawae* (Robinson)
Ledum groenlandicum
- Illinoia* (*Oestlundia*) *rubicola* (Oestlund)
Rubus sp.
- Iziphya* *spenceri* Richards
sweeping
- Iziphya* *vittata* Richards
sweeping
- Lachnus* *allegheniensis* McCook
Quercus macrocarpa
- Lipaphis* *erysimi* (Kaltenbach)
rapeseed
buckwheat
- Longistigma* *caryae* (Harris)
Tilia americana
- Macrosiphoniella* *absinthii* (Linnaeus)
Artemisia absinthium
- Macrosiphoniella* *frigidicola* Gillette and Palmer
Artemisia frigida
- Macrosiphoniella* *ludoviciana* (Oestlund)
Artemisia ludoviciana

- Macrosiphoniella paucisetosa* Robinson
Artemisia ?abrotanum
Macrosiphoniella pennsylvanicum (Pepper)
Achillea millefolium
Macrosiphoniella tanacetaria (Kaltenbach)
Tanacetum vulgare
Macrosiphoniella tapuskae (Hottes and Frison)
Achillea millefolium
Macrosiphum californicum (Clarke)
Salix sp.
Macrosiphum diervillae Patch
Diervilla lonicera
Macrosiphum euphorbiae (Thomas)
Rosa sp.
Macrosiphum geranii (Oestlund)
Geranium pratense
Macrosiphum hamiltoni Robinson
Humulus lupulus
Macrosiphum jeanae Robinson
Sarracenia purpurea
Macrosiphum pseudocoryli Patch
Corylus sp.
Macrosiphum pseudorosae Patch
Eupatorium maculatum
Ranunculus sp.
Rosa sp.
Macrosiphum rosae (Linnaeus)
Rosa sp.
Macrosiphum subarcticum Robinson
Epilobium angustifolium
Macrosiphum tiliae (Monell)
Tilia americana
Macrosiphum (Neocorylobium) coryli Davis
Corylus cornuta
Maculolachnus sijpkensis Hille Ris Lambers
Rosa sp.
Mastopoda pteridis Oestlund
Pteridium aquilinum
Meliarhizophagus fraxinifolii (Riley)
Fraxinus pennsylvanica
Microlophium carnosum (Buckton)
Urtica dioica
Microsiphoniella artemisiae (Gillette)
Artemisia sp.
Mindarus abietinus Koch
Abies balsamea
Mindarus obliquus (Cholodkovsky)
Picea glauca
Misturaphis shiloensis Robinson
Artemisia caudata
Mordvilkoja vagabunda (Walsh)
Populus sp.

- Myzaphis rosarum* (Kaltenbach)
Potentilla fruticosa
Myzocallis discolor (Monell)
Quercus macrocarpa
Myzocallis punctatus (Monell)
Quercus macrocarpa
Myzocallis asclepiadis (Monell)
Asclepias sp.
Myzodium modestum (Hottes)
 moss
Myzus cerasi (Fabricius)
Prunus pensylvanica
Prunus virginiana
Myzus certus (Walker)
Arenaria peploides
Myzus persicae (Sulzer)
 greenhouse plants
Nasonovia (*Eokakimia*) *wahinkae robinsoni* (Richards)
 cultivated delphinium
Nasonovia (*Kakimia*) *aquilegiae* (Essig)
Aquilegia sp.
Nasonovia (*Kakimia*) *borealis* Heie
Heuchera spp.
Nasonovia (*Kakimia*) *castelleiae* (Sampson)
Castilleja spp.
Nasonovia (*Kakimia*) *cynosbati* (Oestlund)
Ribes spp.
Nasonovia (*Kakimia*) *houghtonensis similis* Heie
Ribes spp.
Nasonovia (*Kakimia*) *vockerothi* (Richards)
Saxifraga tricuspidata
Nasonovia (*Kakimia*) *williamsi* Heie
Potentilla arguta
Nasonovia (*Ranakimia*) *purpurascens* (Oestlund)
Thalictrum sp.
Nearctaphis bakeri (Cowen)
 clover
Nearctaphis clydesmithi Hille Ris Lambers
Crataegus sp.
Nearctaphis crataegifoliae (Fitch)
Crataegus sp.
Nearctaphis sensoriata (Gillette and Bragg)
Amelanchier alnifolia
Cotoneaster acutifolia
Neoprociphilus aceris (Monell)
Smilax herbacea
Neosymydobius mimicus Hottes
Quercus macrocarpa
Obtusicauda frigidae (Oestlund)
Artemisia sp.
Oestlundella flava (Davidson)
Alnus sp.

- Ovatus valuliae* (Robinson)
Fragaria sp.
Pemphigus betae Doane
Populus sp.
 roots of sugar beets
Pemphigus junctisensoriatus Maxson
Populus deltoides
Pemphigus monophagus Maxson
Populus balsamifera
Pemphigus nortonii Maxson
Populus deltoides
Pemphigus populicaulis Fitch
Populus deltoides
Pemphigus populiglobuli Fitch
Populus balsamifera
Pemphigus populiramulorum Riley
Populus balsamifera
Pemphigus populitransversus Riley
Populus balsamifera
Pemphigus populivenae Fitch
Populus sp.
Periphyllus negundinis (Thomas)
Acer negundo
Phorodon humuli (Shrank)
Humulus lupulus
Pleotrichophorus gnaphalodes (Palmer)
Artemisia sp.
Pleotrichophorus hottesi Hille Ris Lambers
Achillea millefolium
Pleotrichophorus patonkus (Hottes and Frison)
Achillea millefolium
Pleotrichophorus pseudoglandulosus (Palmer)
Artemisia tridentata
Pleotrichophorus pseudopatonkus Corpuz-Raros and Cook
Achillea millefolium
Pleotrichophorus villosae Robinson
Chrysopsis villosa
Prociphilus erigeronensis (Thomas)
 roots of grass
Prociphilus (*Paraprociphilus*) *tessellatus* (Fitch)
Acer saccharinum
Alnus rugosa
Alnus crispa
Pseudacaudella rubida (Borner)
 moss
Pseudocercidis rosae Richards
Rosa spp.
Pseudoepameibaphis glauca Gillette and Palmer
Artemisia sp.
Pseudopterocomma canadensis Richards
Populus tremuloides
Pterocallis alnifoliae (Fitch)

- Alnus* sp.
Pterocomma bicolor (Oestlund)
Populus balsamifera
Pterocomma populifoliae (Fitch)
Populus tremuloides
Pterocomma smithiae (Monell)
Salix sp.
Rhodobium porosum (Sanderson)
Rosa sp.
Rhopalomyzus grabhami (Cockerell)
Lonicera involucrata
Rhopalomyzus poae (Gillette)
Lonicera sp.
Rhopalomyzus (Judenkoa) *lonicerae* (Siebold)
Lonicera sp.
Rhopalosiphoninus (Myzosiphon) *solani* (Thomas)
sweeping
Rhopalosiphoninus (Myzosiphon) *staphyleae* subsp. *tulipaella* (Theobald)
yellow pan trap
Rhopalosiphum cerasifoliae (Fitch)
Prunus virginiana
Rhopalosiphum enigmae Hottes and Frison
Typha latifolia
Rhopalosiphum insertum (Walker)
Crataegus sp.
Malus sp.
grains and grasses
Rhopalosiphum maidis (Fitch)
Zea mays
Rhopalosiphum nigrum Richards
Crataegus sp.
Zizania aquatica
Rhopalosiphum nymphaeae (Linnaeus)
Potamogeton sp.
Rhopalosiphum padi (Linnaeus)
Prunus virginiana
grains and grasses
Rhopalosiphum rufulum Richards
Crataegus sp.
Schizaphis graminum (Rondani)
grains and grasses
Schizaphis viridirubra (Gillette and Palmer)
Scirpus atrovirens
Sipha flava (Forbes)
sweeping
Sipha glyceriae (Kaltenbach)
Glyceria sp.
Sipha (*Rungsia*) *elegans* Del Guercio
Agropyron repens
Sitobion avenae (Fabricius)
grains and grasses

- Sitobion manitobensis* Robinson
Cornus stolonifera
Sitobion ptericolens (Patch)
Pteridium aquilinum
Sitobion woodsiae Robinson
Woodsia ilvensis
Stagona xylostei (De Geer)
Lonicera sp.
Stegophylla querci (Fitch)
Quercus macrocarpa
Symydobius americanus Baker
Betula papyrifera
Tamalia coweni (Cockerell)
Arctostaphylos uva-ursi
Tetraneura ulmi (Linnaeus)
Hordeum jubatum roots
Thecabius affinis (Kaltenbach)
Populus balsamifera
Thecabius (*Parathecabius*) *gravicornis* (Patch)
Populus balsamifera
Thecabius (*Parathecabius*) *populimonilis* (Riley)
Populus balsamifera
Therioaphis trifolii (Monell)
clover
Thripsaphis (*Trichocallis*) *cyperi* (Walker)
sweeping
Tinocallis ulmifolii (Monell)
Ulmus americana
Trama rara Mordvilko
Taraxacum officinale
Tuberolachnus salignus (Gmelin)
Salix sp.
Uroleucon (*Lambersius*) *brevitarsus* (Robinson)
Solidago sp.
Uroleucon (*Lambersius*) *caligatus* (Richards)
Solidago sp.
Uroleucon (*Lambersius*) *carberriensis* Robinson
Chrysopsis villosa
Uroleucon (*Lambersius*) *erigeronensis* (Thomas)
Erigeron canadensis
Uroleucon (*Lambersius*) *escalantii* (Knowlton)
Aster laevis
Uroleucon (*Lambersius*) *gravicorne* (Patch)
Solidago sp.
Uroleucon (*Lambersius*) *macgillivrayae* (Olive)
Aster sp.
Solidago sp.
Uroleucon (*Lambersius*) *manitobensis* Robinson
Aster puniceus
Uroleucon (*Lambersius*) *richardsi* (Robinson)
Grindelia squarrosa
Uroleucon (*Lambersius*) *tenuitarsum* (Gillette and Palmer)

- Aster sp.
 Uroleucon (Uroleucon) ambrosiae (Thomas)
 Ambrosia sp.
 Iva sp.
 Uroleucon (Uroleucon) arnesense Robinson
 Solidago sp.
 Uroleucon (Uroleucon) astronomus (Hille Ris Lambers)
 purple aster
 Uroleucon (Uroleucon) chrysanthemi (Oestlund)
 Bidens sp.
 Uroleucon (Uroleucon) cirsii (Linnaeus)
 Cirsium arvense
 Uroleucon (Uroleucon) deltense Robinson
 Lactuca pulchella
 Uroleucon (Uroleucon) eupatoricolens (Patch)
 Eupatorium maculatum
 Uroleucon (Uroleucon) gigantiphagum Moran
 Solidago sp.
 Uroleucon (Uroleucon) hieracicola Hille Ris Lambers
 Hieracium sp.
 Uroleucon (Uroleucon) ivae Robinson
 Iva xanthifolia
 Uroleucon (Uroleucon) maximilianicola Robinson
 Helianthus maximiliani
 Uroleucon (Uroleucon) nigrotibium (Olive)
 Solidago sp.
 Uroleucon (Uroleucon) nigrotuberculatum (Olive)
 Solidago sp.
 Uroleucon (Uroleucon) obscuricaudatum (Olive)
 Helianthus sp.
 Heliopsis helianthoides var. scabra
 Uroleucon (Uroleucon) olivei Moran
 Aster sp.
 Uroleucon (Uroleucon) paucosensoriatum (Hille Ris Lambers)
 Aster sp.
 Uroleucon (Uroleucon) pepperi (Olive)
 Cirsium sp.
 Uroleucon (Uroleucon) pieloui (Richards)
 Solidago sp.
 Uroleucon (Uroleucon) rudbeckiae (Fitch)
 Rudbeckia laciniata
 Uroleucon (Uroleucon) russellae (Hille Ris Lambers)
 Anaphalis margaritacea
 Uroleucon (Uroleucon) solirostratum (Richards)
 Solidago sp.
 Uroleucon (Uromelan) helianthicola (Olive)
 Helianthus maximiliani
 Uroleucon (Uromelan) taraxaci (Kaltenbach)
 Taraxacum officinale
 Utamphorophora humboldti (Essig)
 Physocarpus opulifolius
 Wahlgreniella nervata (Gillette)

Rosa sp.

Wahlgreniella vaccinii (Theobald)

Vaccinium sp.

LIST OF THE APHID HOST PLANTS

The aphid host plants are printed in bold type and listed alphabetically by genus and species. The aphids associated with a host are listed following each host plant name in regular type and indented, starting on the next line.

- Abies balsamea**
 Mindarus abietinus
- Acer negundo**
 Periphyllus negundinis
- Acer saccharinum**
 Prociphilus (Paraprociphilus) tessellatus
 Drepanaphis acerifoliae
- Acer spicatum**
 Drepanaphis spicata
 Macrosiphoniella pennsylvanicum
 Pleotrichophorus pseudopatonkus
 Pleotrichophorus hottesi
 Pleotrichophorus patonkus
 Macrosiphoniella tapuskae
- Agastache foeniculum**
 Aphis neomonardae
- Agropyron repens**
 Diuraphis (Holcaphis) frequens
 Forda marginata
 Sipha (Rungsia) elegans
- Agrostis sp.**
 Glabromyzus howardi
- Alnus rugosa**
 Prociphilus (Paraprociphilus) tessellatus
- Alnus spp.**
 Euceraphis gillettei
 Pterocallis alnifoliae
 Illinoia alni
 Boernerina variabilis
 Oestlundella flava
- Alnus crispa**
 Prociphilus (Paraprociphilus) tessellatus
- Ambrosia sp.**
 Uroleucon (Uroleucon) ambrosiae
- Amelanchier alnifolia**
 Eriosoma americanum
 Aphis whiteshellensis
 Nearctaphis sensoriata
- Anaphalis margaritacea**
 Uroleucon (Uroleucon) russellae
 Illinoia richardsi
- Apocynum androsaemifolium**
 Aphis spiraecola
- Apocynum cannabinum**
 Aphis asclepiadis

- Apocynum* spp.
 Aphis asclepiadis
Aquilegia sp.
 Nasonovia (*Kakimia*) *aquilegiae*
Arctium minus
 Aphis barberae
Arctostaphylos uva-ursi
 Tamalia coweni
Arenaria peploides
 Myzus certus
Artemisia absinthium
 Macrosiphoniella absinthii
Artemisia caudata
 Misturaphis shiloensis
Artemisia frigida
 Macrosiphoniella frigidicola
 Epameibaphis frigidae
Artemisia ludoviciana
 Macrosiphoniella ludoviciana
Artemisia sp.
 Microsiphoniella artemisiae
 Pleotrichophorus gnaphalodes
 Aphis armoraciae
 Coloradoa absinthii
 Obtusicauda frigidae
 Coloradoa artemisiae
 Pseudoepameibaphis glauca
Artemisia tridentata
 Pleotrichophorus pseudoglandulosus
Artemisia ?abrotanum
 Macrosiphoniella paucisetosa
Asclepias sp.
 Myzocallis asclepiadis
Aster laevis
 Uroleucon (*Lambersius*) *escalantii*
Aster puniceus
 Uroleucon (*Lambersius*) *manitobensis*
Aster sp.
 Acyrthosiphon asterifoliae
 Uroleucon (*Uroleucon*) *olivei*
 Uroleucon (*Lambersius*) *macgillivrayae*
 Uroleucon (*Uroleucon*) *paucosensoriatum*
 Uroleucon (*Lambersius*) *tenuitarsum*
Betula glandulosa
 Calaphis manitobensis
Betula papyrifera
 Calaphis betulaecolens
 Symydobius americanus
 Calaphis viridipallida
 Cepigilletea betulaefoliae
 Betulaphis quadrituberculata
Betula spp.

Hamamelistes spinosus
 Euceraphis betulae
 Euceraphis gillettei
 Callipterinella callipterus

Bidens sp.

Aphis nasturtii
 Uroleucon (Uroleucon) chrysanthemi
 Aphis mimuli

Brassica oleracea

Brevicoryne brassicae

Bromus inermis

Cryptaphis bromi

Caragana arborescens

Acyrtosiphon caraganae

Castilleja spp.

Nasonovia (Kakimia) castelleiae

Ceanothus ovatus

Aphis ceanothi

Chenopodium album

Hayhurstia atriplicis

Chrysopsis villosa

Pleotrichophorus villosae

Uroleucon (Lambersius) carberriensis

Cicuta mackenzieana

Cavariella konoi

Cicuta maculata

Cavariella konoi

Aphis heraclella

Aphis thaspis

Cirsium arvense

Uroleucon (Uroleucon) cirsii

Aphis barberae

Cirsium spp.

Capitophorus elaeagni

Uroleucon (Uroleucon) pepperi

Convallaria majalis

Illinoia wahnaga

Cornus stolonifera

Aphis neogillettei

Sitobion manitobensis

Aphis helianthi

Anoecia cornicola

Aphis salicariae

Aphis maculatae

Corylus cornuta

Macrosiphum (Neocorylobium) coryli

Corylus sp.

Macrosiphum pseudocoryli

Cotoneaster acutifolia

Nearctaphis sensoriata

Aphis pomi

Crataegus sp.

- Rhopalosiphum nigrum*
- Nearctaphis crataegifoliae*
- Glabromyzus crataegi*
- Eriosoma crataegi*
- Rhopalosiphum insertum*
- Nearctaphis clydesmithi*
- Rhopalosiphum rufulum*
- Crepis tectorum*
 - Hyperomyzus (Neonasonovia) sandilandica*
- Diervilla lonicera*
 - Macrosiphum diervillae*
 - Aphis gossypii*
- Dryas integrifolia*
 - Acyrtosiphon brevicorne*
- Epilobium angustifolium*
 - Aphis salicariae*
 - Aphis neogillettei*
 - Aphis varians*
 - Aphis nivalis*
 - Macrosiphum subarcticum*
 - Aphis helianthi*
- Equisetum laevigatum*
 - Anoecia setariae*
- Erigeron canadensis*
 - Uroleucon (Lambersius) erigeronensis*
- Erigeron sp.*
 - Illinoia goldamaryae*
- Euonymus europaeus*
 - Aphis fabae*
- Eupatorium maculatum*
 - Uroleucon (Uroleucon) eupatoricolens*
 - Macrosiphum pseudorosae*
- Fragaria spp.*
 - Chaetosiphon (Pentatrichopus) minor*
 - Aphis forbesi*
 - Ovatus valuliae*
- Fraxinus pennsylvanica*
 - Meliarhizophagus fraxinifolii*
- Galium boreale*
 - Aphis gossypii*
- Geranium pratense*
 - Macrosiphum geranii*
- Glyceria sp.*
 - Sipha glyceriae*
- Grindelia squarrosa*
 - Illinoia grindeliae* subsp. *palmerae*
 - Uroleucon (Lambersius) richardsi*
 - Atarsos grindeliae*
- Hedysarum mackenzii*
 - Acyrtosiphon churchillense*
- Helianthus annuus*
 - Aphis helianthi*

Helianthus maximiliani

Uroleucon (Uroleucon) maximilianicola

Uroleucon (Uromelan) helianthicola

Helianthus sp.

Uroleucon (Uroleucon) obscuricaudatum

Heliopsis helianthoides var. scabra

Uroleucon (Uroleucon) obscuricaudatum

Heracleum lanatum

Cavariella pastinacae

Aphis decepta

Aphis heraclella

Heuchera spp.

Nasonovia (Kakimia) borealis

Hieracium sp.

Uroleucon (Uroleucon) hieracicola

Hordeum jubatum

Tetraneura ulmi

Anoecia graminis

Hordeum vulgare

Acyrtosiphon (Metopolophium) dirhodum

Humulus lupulus

Macrosiphum hamiltoni

Aphis helianthi

Phorodon humuli

Impatiens capensis

Aphis helianthi

Iva sp.

Uroleucon (Uroleucon) ambrosiae

Iva xanthifolia

Uroleucon (Uroleucon) ivae

Juniperus communis

Cinara juniperi

Juniperus horizontalis

Cinara petersoni

Lactuca canadensis

Acyrtosiphon lactucae

Lactuca pulchella

Uroleucon (Uroleucon) deltense

Lactuca scariola

Acyrtosiphon lactucae

Larix laricina

Cinara laricifex

Cinara spiculosa

Cinara subterranea

Lathyrus spp.

Acyrtosiphon pisum

Ledum groenlandicum

Illinoia (Masonaphis) pinawae

Illinoia (Masonaphis) paqueta

Ledum sp.

Illinoia azaleae

Linnaea borealis

- Illinoia simpsoni*
Lonicera dioica
 Gypsoaphis oestlundii
 Alphitoaphis lonicericola
Lonicera involucrata
 Rhopalomyzus grabhami
Lonicera sp.
 Rhopalomyzus poae
 Rhopalomyzus (Judenkoa) loniceræ
 Stagona xylostei
Lonicera tatarica
 Hyadaphis tataricæ
Malus spp.
 Aphis pomi
 Eriosoma lanigerum
 Rhopalosiphum insertum
Matteucia struthiopteris
 Amphorophora ampullata laingi
Mirabilis hirsuta
 Aphis helianthi
Monarda fistulosa
 Hyalomyzus monardæ
 Aphis gossypii
 Aphis neomonardæ
Myrica gale
 Illinoia canadensis
Oenothera biennis
 Anoecia oenotheræ
 Aphis oestlundii
 Aphis gossypii
 Aphis oenotheræ
Oenothera parviflora
 Aphis oenotheræ
 Aphis oestlundii
Oxytropis campestris
 Acyrtosiphon churchillense
 Aphis masoni
Oxytropis leucantha var. *hudsonica*
 Acyrtosiphon churchillense
 Aphis masoni
Pastinaca sativa
 Aphis heracleella
Pelargonium sp.
 Aulacorthum solani
Phragmites communis
 Hyalopterus pruni
Physocarpus opulifolius
 Utamphorophora humboldti
Picea glauca
 Mindarus obliquus
 Cinara braggii
 Cinara coloradensis

- Cinara* *foracula*
- Cinara* *hottesii*
- Cinara* *obscura*
- Pinus banksiana*
 - Cinara* *pergandei*
 - Cinara* *ontarioensis*
 - Cinara* *canatra*
 - Cinara* *banksiana*
- Pinus resinosa*
 - Cinara* *harmonia*
- Pinus* *sp.*
 - Cinara* *pinia*
- Pinus strobus*
 - Cinara* *strobi*
- Pisum* *spp.*
 - Acyrtosiphon* *pisum*
- Poa pratensis*
 - Forda* *formicaria*
 - Forda* *marginata*
- Polygonatum canaliculatum*
 - Catamergus* *kickapoo*
- Polygonum aviculare*
 - Aspidaphis* *adjuvans*
- Polygonum persicaria*
 - Capitophorus* *hippophaes*
- Populus balsamifera*
 - Thecabius* (*Parathecabius*) *gravicornis*
 - Pemphigus* *populiglobuli*
 - Pemphigus* *populitransversus*
 - Thecabius* (*Parathecabius*) *populimonilis*
 - Thecabius* *affinis*
 - Pterocomma* *bicolor*
 - Pemphigus* *populiramulorum*
 - Pemphigus* *monophagus*
- Populus deltoides*
 - Pemphigus* *unctisensoriatus*
 - Pemphigus* *nortonii*
 - Pemphigus* *populicaulis*
- Populus* *spp.*
 - Chaitophorus* *essigi*
 - Chaitophorus* *populicola*
 - Chaitophorus* *essigi* subsp. *neglectus*
 - Mordvilkoja* *vagabunda*
 - Chaitophorus* *populialbae*
 - Pemphigus* *betae*
 - Pemphigus* *populivenae*
 - Chaitophorus* *stevensis*
- Populus tremuloides*
 - Aphis* *maculatae*
 - Pseudopteroomma* *canadensis*
 - Pterocomma* *populifoliae*
 - Chaitophorus* *nudus*

Potamogeton sp.*Rhopalosiphum* *nymphaeae**Potentilla arguta**Nasonovia* (*Kakimia*) *williamsi**Potentilla fruticosa**Myzaphis* *rosarum**Acyrthosiphon* *assiniboinensis**Chaetosiphon* *scalaris**Prenanthes alba**Hyperomyzus* (*Neonasonovia*) *nabali**Prunus pensylvanica**Myzus* *cerasi**Prunus* spp.*Hysteroneura* *setariae**Hyalopterus* *pruni**Prunus virginiana**Rhopalosiphum* *padi**Rhopalosiphum* *cerasifoliae**Asiphonaphis* *pruni**Myzus* *cerasi**Pteridium aquilinum**Mastopoda* *pteridis**Sitobion* *ptericolens**Quercus macrocarpa**Lachnus* *allegheniensis**Stegophylla* *querci**Myzocallis* *discolor**Myzocallis* *punctatus**Hoplochaitophorus* *quercicola**Neosymydobius* *mimicus**Ranunculus* sp.*Macrosiphum* *pseudorosae**Rhamnus* sp.*Aphis* *nasturtii**Rheum rhaponticum**Aphis* *barberae**Rhus glabra**Glabromyzus* *rhois**Ribes aureum**Aphis* *mimuli**Ribes* spp.*Hyperomyzus* *pallidus**Nasonovia* (*Kakimia*) *houghtonensis similis**Hyperomyzus* (*Neonasonovia*) *ribiellus**Nasonovia* (*Kakimia*) *cynosbati**Aphis* *neomexicana**Aphis* *manitobensis**Aphis* *varians**Hyperomyzus* *lactucae**Hyperomyzus* (*Neonasonovia*) *nabali**Rosa* spp.*Pseudocercidis* *rosae*

Chaetosiphon (*Pentatrichopus*) *fragaefolii*
Wahlgreniella nervata
Maculolachnus sijpkensis
Acyrtosiphon (*Metopolophium*) *dirhodum*
Macrosiphum pseudorosae
Macrosiphum rosae
Rhodobium porosum
Macrosiphum euphorbiae

Rubus pubescens

Amphorophora stolonis
Fimbriaphis wakibae

Rubus spp.

Aphis rubicola
Amphorophora agathonica
Illinoia (*Oestlundia*) *rubicola*

Rubus idaeus var. *strigosus*

Aphis rubicola

Rudbeckia hirta

Aphis armoraciae

Rudbeckia laciniata

Uroleucon (*Uroleucon*) *rudbeckiae*

Rudbeckia serotina

Aphis armoraciae

Rumex spp.

Aphis rumicis

Salix planifolia

Chaitophorus pusillus
Chaitophorus viminalis
Cavariella aquatica
Cavariella konoi

Salix spp.

Chaitophorus nigrae
Aphis farinosa
Chaitophorus saliciniger
Macrosiphum californicum
Chaitophorus nigricentrus
Pterocomma smithiae
Tuberolachnus salignus
Cavariella konoi
Cavariella aegopodii
Chaitophorus macrostachyae

Sanicula marilandica

Aphis saniculae

Sarracenia purpurea

Macrosiphum jeanae

Saxifraga tricuspidata

Nasonovia (*Kakimia*) *vockerothi*

Scirpus atrovirens

Schizaphis viridirubra

Sedum sp.

Aphis sedi

Senecio pauperculus

- Aphis duckmountainensis*
Shepherdia canadensis
Capitophorus hudsonicus
Sium suave
Aphis heraclella
Cavariella salicis
Hyadaphis foeniculi
Smilacina sp.
Illinoia wahnaga
Smilax herbacea
Neoprociphilus aceris
Solidago sp.
Uroleucon (Uroleucon) solirostratum
Uroleucon (Uroleucon) gigantiphagum
Uroleucon (Lambersius) macgillivrayae
Uroleucon (Uroleucon) pieloui
Uroleucon (Uroleucon) nigrotuberculatum
Uroleucon (Uroleucon) nigrotibium
Uroleucon (Lambersius) brevitarsus
Uroleucon (Lambersius) caligatus
Uroleucon (Uroleucon) arnesense
Uroleucon (Lambersius) gravicorne
Illinoia goldamaryae
Sonchus arvensis
Hyperomyzus pallidus
Hyperomyzus lactucae
Sonchus spp.
Capitophorus elaeagni
Sorbus aucuparia
Aphis pomi
Spiraea spp.
Aphis spiraephila
Aphis spiraecola
Illinoia spiraecola
Acyrtosiphon pseudodirhodum
Stachys palustris
Cryptomyzus ribis
Symphoricarpos occidentalis
Aphthargelia symphoricarpi
Tanacetum vulgare
Macrosiphoniella tanacetaria
Taraxacum lacerum
Aphis madderae
Taraxacum officinale
Trama rara
Aphis knowltoni
Uroleucon (Uromelan) taraxaci
Teucrium occidentale
Cryptomyzus ribis
Thalictrum sp.
Nasonovia (Ranakimia) purpurascens
Tilia americana

Macrosiphum tiliae
 Eucallipterus tiliae
 Longistigma caryae
 Triticum aestivum
 Diuraphis (Holcaphis) tritici
 Typha latifolia
 Rhopalosiphum enigmae
 Ulmus americana
 Tinocallis ulmifolii
 Colopha ulmicola
 Eriosoma americanum
 Ulmus sp.
 Eriosoma lanigerum
 Urtica dioica
 Microlophium carnosum
 Vaccinium sp.
 Wahlgreniella vaccinii
 Acyrthosiphon brachysiphon
 Viburnum opulus
 Ceruraphis viburnicola
 Viburnum rafinesquianum
 Aphis viburniphila
 Viburnum trilobum
 Aphis viburniphila
 Aphis barberae
 Vicia cracca
 Aphis craccae
 Vicia faba
 Aphis fabae
 Vicia spp.
 Acyrthosiphon pisum
 Woodsia ilvensis
 Sitobion woodsiae
 Xanthium strumarium
 Capitophorus xanthii
 Aphis barberae
 Zea mays
 Rhopalosiphum maidis
 Zizania aquatica
 Rhopalosiphum nigrum
 Zizia aptera
 Aphis saniculae
 Zizia aurea
 Aphis thaspii
 Hyadaphis foeniculi

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